

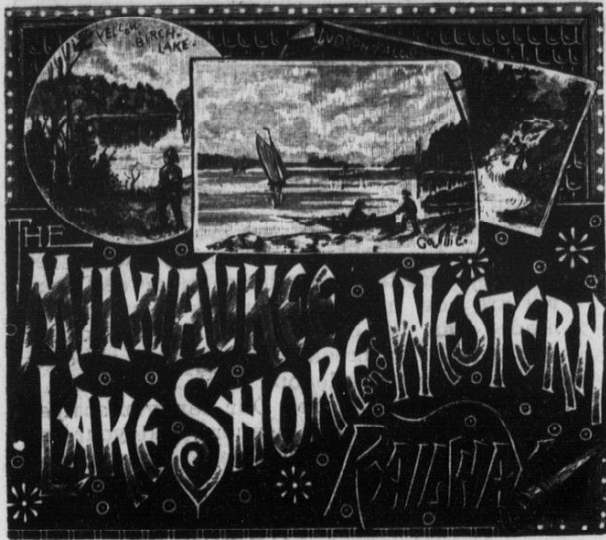
The United States MILLER

Devoted to Flour, Grain, Milling, Manufacturing and Commercial Interests.

Fourteenth Year—No 3.

MILWAUKEE, MARCH, 1889.

Subscription Price, \$1.00 Per Year.



It is with pleasure that we devote our entire first page to illustrations of scenery along the line of the above-named railroad, for the reason that we believe it will prove especially interesting to the thousands of visitors to Milwaukee this summer, who will come here on the occasion of the Grand Army of the Republic Encampment, many of whom will, no doubt, desire to take a trip over the line, to study the many openings for prosperous business in lumbering, mining, manufacturing, developing of numerous water powers, etc., and perhaps to while away a few days in pursuit of the gamiest fish yet developed in American waters, i. e., the black bass and the muskallonge as well as the dainty brook-trout.

This line originally connecting the principal cities on the western shore of Lake Michigan, Sheboygan and Manitowoc with Milwaukee, and by the Milwaukee division of the Chicago & Northwestern Railway with Chicago, was at a later period extended direct to Kaukauna, Appleton, New London and Wausau in Central Wisconsin, and finally pushed with extraordinary rapidity for nearly two hundred miles through the almost unbroken forest to the Gogebic, Penoque and Montreal iron ranges of the Michigan Peninsula, thence to Ashland, Wis., its present terminus on Lake Superior.

In calling to mind the various railways of the country whose lines by virtue of the wise foresight of their projectors, or owing to the fortunate fact that the latter built better than they knew, have been specially fortunate in their location as related to the possibilities of tribu-

tary territory, it would be difficult, considering the limits actually occupied and immediately affected, to find one so exceptionally favored in this respect as this line.

The entire region adjacent to the line possesses those natural and varied resources and advantages which create traffic, aid in the building up of commercial and manufacturing communities and stimulate the intercourse of all classes of people between it and other sections of the country.

The proximity of this vast timbered region to numerous localities on the same line of railway affording abundant water power and all the facilities for the manufacture of lumber, pulp, paper, furniture and all kinds of wooden-ware, has had a most important bearing on the growth of manufacturing industries. The advantages of locating such enterprises in a section where the raw material extends from the doors of the workshop and mill for a hundred or more miles in every direction, and in a country intersected by natural waterways, is very apparent.

The city of Sheboygan owes much of its recent rapid growth and present prosperity to its chair, furniture and wooden-ware manufacturing. Two rivers is also prominent in this respect. Kaukauna and Appleton are both widely known as general manufacturing centers, including among their other establishments several of the largest paper, pulp and flouring mills in the West,



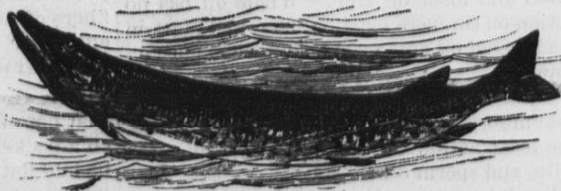
JUDSON FALLS, SLATE RIVER.



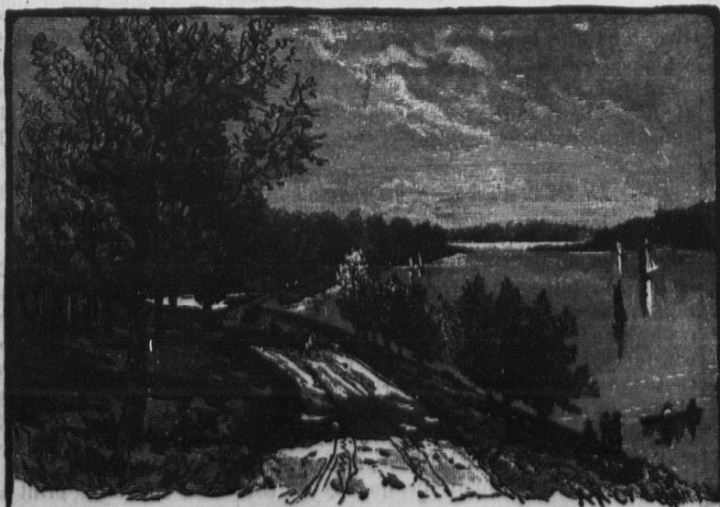
SCENE ON LAKE GOGEBIC.



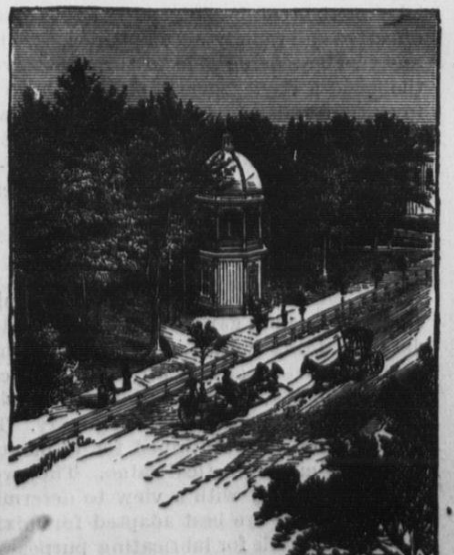
PILOT ROCK, SLATE RIVER.



KING OF THE LAKES.



RIVERSIDE DRIVE, APPLETON.



THE FOUNTAIN, SHEBOYGAN, WIS.

agricultural implement and machinery works, woolen mills and boot and shoe factories. The immense water-power of the Fox River at these points and the extensive improvements connected therewith for the purpose of increasing the facilities for the location of manufactories have given prominence to both Appleton and Kaukauna. Oshkosh has extensive sash, door and blind and furniture manufactories and match factories. Wausau also has sash, door and blind and other manufacturing industries and a magnificent water-power capable of great development. There are numerous other points on the line where manufacturing has been established and a careful investigation will well repay those seeking the most favorable locations for enterprises of this kind.

Our space does not permit us to go into any details whatever, but very complete information concerning this road and the country which it traverses can be obtained by addressing Mr. Ernst Vliet, G. P. A., Milwaukee, Lake Shore & Western Railway, Milwaukee, Wis.

The Greatest Success of the Day!

THE NEW ERA SCALPER

Read the following Testimonials and then write us for particulars:

TESTIMONIAL.

CARLINVILLE, ILL., Feb. 16, 1889.

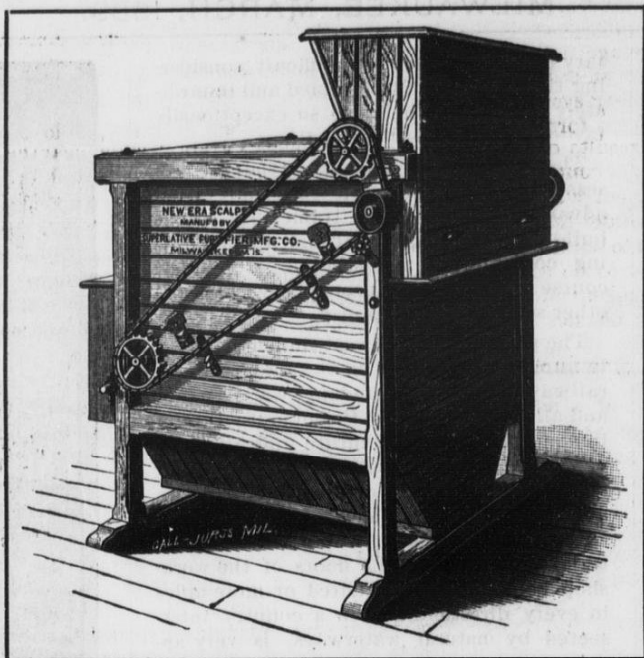
Superlative Purifier Co., Milwaukee:

DEAR SIR: It affords us great pleasure to say that the New Era Scalpers are giving the very best of satisfaction, and the longer we use them the better we are pleased. Our patent as well as the grade below the patent have been improved considerably with no other change in the mill than scalping with your machines. They require nominal power, and, in a word, are a big success.

Yours truly,

HENRY C. YAEGER.

Pres't Yaeger Flour Mill Co.



TESTIMONIAL.

YOUNGSTOWN, O., Dec. 7, 1888.

DEAR SIR: In order to put in your scalpers on our 2d, 3d, 4th and 5th breaks and retain our hexagon scalpers for wheat cleaners, I was obliged to add another story to our roller room, at an expense of five times as much as the cost of the machines. Having now run the machines for thirty days, I feel satisfied with the expenditure made, as I think we are now making the nicest flour we ever made. Our 2d, 3d, 4th and 5th break flour (we make eight breaks) is as white and clean as our patent, while our flour all through is the best we ever made. Our hexagon scalpers make excellent wheat cleaners, and your machined make excellent scalpers. The two combines make excellent flour.

Respectfully yours,

HOMER BALDWIN.

One Machine will handle 4 Breaks in 75 bbl. mill, or 1 Break in 500 bbl. mill. Break Flour as white as any.

FOR PRICES, ETC., ADDRESS

SUPERLATIVE PURIFIER MFG. CO.

MILWAUKEE, WISCONSIN.

[Mention this paper]

A VALUABLE INVENTION.

Mr. G. W. Avery, an inventor of Cleveland, recently had issued to him a patent which covers substantial improvements in the manufacture of elevator buckets, cattle-car troughs and other similar articles. As heretofore made such buckets and troughs have been made either from blanks cut and bent into form by stamping from sheet metal what is known as "seamless" troughs, etc. The folded blank forms are heavy clumsy and are expensive to make because of the great waste of material and of the riveting or other means adopted to secure the blanks in form. The seamless buckets and troughs are expensive because they require a special make of steel that is costly and difficult to procure, while the breakage in stamping is considerable. Besides, the sizes of these seamless articles are necessarily limited, as stamping in the forms of buckets and troughs cannot be done beyond comparatively shallow depths and short lengths. By Mr. Avery's invention elevator buckets for cattle-car troughs and other articles, possessing all the advantages of the seamless articles, can be produced at minimum initial cost. He stamps from sheet metal, buckets, troughs, etc. in halves and then secures the parts together by means of brazing or by electrically welding or fusing. These halves requiring little drawing of the metal in stamping them allows their being made of cheap grades of metal, procurable at all times in any market, and they may be made of any depth or length, with no loss by breakage. The method of brazing adopted is cheap, effective and rapidly accomplished, two men and two boys being able to turn out several thousand a day. Some capitalists have the invention under advisement with a view to forming a company having sufficient capital to manufacture elevator buckets, cattle-car troughs, and other articles on a large scale, either in Cleveland or Chicago.

ACTION OF OILS ON METALS.

The Journal of the Society of Chemical Industry recently gave some very interesting data regarding the action of oils in common use upon metals, as they are brought in contact by storage, transportation and employment in the lubrication of machinery. The experiments were continued for 12 months, and are of much practical value. They were made principally with a view to determine what fixed oils are best adapted for mixing with mineral oils for lubricating purposes.

The metals were first thoroughly cleaned and washed with ether and dried, and after being weighed placed in cork tubes together with the oil, the tubes being kept for twelve months at an average temperature of about 80 degrees F. in the summer, and 50 degrees F. to 55 degrees F. in the winter.

The results of the experiments show that: Iron is least affected by seal oil, and most by tallow oil. Brass is most affected by rape oil, least by olive oil, and most by cotton-seed oil. Lead is least affected by olive oil and most by whale oil; but whale, lard and sperm oils all act to nearly the same extent on lead. Zinc seems, by four actual weighings that were of any value, to be not acted on by mineral lubricating oil, least by lard oil and most by sperm oil. Copper is not affected by mineral lubricating oil, least by sperm oil and most by tallow oil. Mineral lubricating oil has no action on zinc and copper, acts least on brass and most on lead. Olive oil acts least on tin and most on copper. Rape oil has no action on brass and tin, acts least on iron and most on copper. Tallow oil acts least on tin and most on copper. Lard oil acts least on zinc and most on copper. Cotton-seed oil acts least on lead and most on tin. Sperm oil acts least on brass and most on zinc. Whale oil has no action on tin, acts least on brass and most on lead. Seal oil acts least on brass and most on copper.

From the foregoing results it will be seen that mineral lubricating oil has, on the whole, the least action on the metals experimented with, and sperm oil the most.

For lubricating the journals of heavy machinery, either rape or sperm oil is the best oil to use in admixture with mineral oil as they have the least effect on brass and iron, which two metals generally constitute the bearing surfaces of an engine. Tallow oil should be used as little as possible, as it has considerable action on iron.

THINGS WORTH KNOWING.

In buying a belt, an engineer of standing advises machinists to select belts of a light color in preference to others. The best belting, he states, has an unmistakable light buff color, which indicates that it is not only all oak-tanned, but that the leather has been thoroughly washed by the currier, to remove all matter except the fiber. The light color also indicates that the best qualities of grease only have been used, as inferior greases darken the color and impair the quality of the

leather. The same rule holds in getting good sole leather for shoes.

CLEANING BRASS.—It is a great mistake to clean brass articles with acid, as they very soon become dull after such treatment; sweet oil and putty powder, followed by soap and water, is one of the best mediums for brightening brass and copper.

SOMETIMES I have had to make holes in steel that was too hard to cut or file easily. Then I make a mixture that will cut a hole. I mix one ounce of sulphate of copper, quarter of an ounce of alum, half a teaspoonful of powdered salt, a gill of vinegar, twenty drops of nitric acid. This will make a hole, or if washed off quickly it will give a beautiful frosted appearance to the metal.—Ez.

A French scientific journal asserts that it has long been known that the stalk of the sugar-cane might be used in the production of a paper of the best quality; and in recommending the introduction of paper making among the French sugar producing colonies expresses surprise that with the constant decline in the value of sugar and the steadily increasing use of paper, it has never occurred to sugar planters to embark in the manufacture of paper as a supplement to sugar producing. The fibers of the cane, it is claimed, give an excellent paper, and the necessary mechanical and chemical process are easily carried out.

A DEALER in cutlery expresses the opinion that not one man in fifty knows how to sharpen a pocket knife. "A razor," he says "must be laid flat on the hone, being hollow ground and requiring a fine edge. But a pocket knife requires a stiff edge, and the moment you lay it flat on a stone, so as to touch the polished side you ruin the edge. The blade must be held at an angle of twenty or twenty-five degrees and have an edge similar to a chisel. This is technically called the 'canal,' and is marked on all new knives by a white line which does not remove or touch the polished surface. Knives improperly whetted are often condemned as too hard or too soft without reason."

A WELL-KNOWN Eastern manufacturing company are using in their shop thin sheet iron as a mounting for blue prints, and it is proving very satisfactory. It is cold rolled, has a smooth surface, and it is cut into two different sizes for blue prints used in the shop. It is practically indestructible, quite light and inexpensive. The iron is first varnished on both sides with shellac varnish, then the blue print is put on with a paste

composed of ordinary starch, after which the face of the print is varnished with the shellac. The chief draftsman says he experimented with a good many kinds of paste before finding a satisfactory one, and that starch is the only thing found that would answer. He also found that, unless the iron is previously varnished, it oxidizes under the print and spoils the lines.

A RECENT case is reported where a painter engaged in a mill removed his overalls at 6 p. m. to go home. At 8:30 the watchman, discovering smoke in the mill, summoned the engineer, and together they searched the premises carefully, tracing the smoke to a small room in which the overalls were discovered, and in one pocket was a bunch of greasy waste, which ignited. This goes to prove that spontaneous combustion will ensue in less than three hours if the conditions are all right.

PATENT SECRETS.

Every inventor who takes out a patent does so under the impression that by so doing his secret is safe, and that he will be protected in the manufacture of the article against the infringements, or the ingenious imitations of others.

Now, the fact is that as soon as the patent is granted, it, together with the claim upon which it is granted, is published, and is no longer a secret, as any one can easily learn what the claim covers, and with this information can go to work to improve upon it, and if successful very often produces an article that is more valuable, and is a successful competitor against the original, and the poor inventor finds his patents of little value.

In order to protect themselves against such thievishness many inventors have taken advantage of the system of patent law which allows a man to file his application and pay a certain amount, which secures him for a term of four years, without taking out his final papers and having his patent published and his claims made public. At the end of four years he can renew his application for another term of equal length. In this way his secret is safe, for the patent examiners and those in charge of the matter are under heavy bonds to the Government not to divulge the secrets or claims of the applicant for a patent, and those who would steal the patent or attempt to imitate it either in part or as a whole dare not do so now, not knowing what is covered by the claims of the inventor.—Manufacturers' Gazette.

UNITED STATES MILLER.

E. HARRISON CAWKER, EDITOR.

PUBLISHED MONTHLY.

OFFICE, NO. 124 GRAND AVENUE, MILWAUKEE.

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 Foreign subscribers..... 1.25
 All Drafts and Post-Office Money Orders must be made payable to E. Harrison Cawker.
 Bills for advertising will be sent monthly, unless otherwise agreed upon.
 For estimates for advertising, address the UNITED STATES MILLER.

[Entered at the Post Office at Milwaukee, Wis., as mail matter of the second-class.]

MILWAUKEE, MARCH, 1889.

We respectfully request our readers when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in the UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

MILWAUKEE AMUSEMENTS.

ACADEMY OF MUSIC—First-class theatrical entertainments every evening. Matinees Wednesdays, Saturdays and Sundays, at 2 p. m.

STANDARD THEATER (South-side)—Every evening; matinees Saturdays and Sundays, at 2 p. m.

GRAND AVENUE THEATER AND MUSEUM—Open daily from 10 a. m. to 10 p. m.

STADT THEATER (German)—Wednesday and Sunday evenings.

PEOPLE'S THEATER—Choice variety performances every evening; matinees Tuesdays, Fridays and Sundays, at 2:30 p. m.

PUBLIC MUSEUM, Exposition Building—Open daily; admission free.

LAYTON ART GALLERY—Open daily. Free admission Tuesday, Thursday and Saturday.

The fire loss in the United States and Canada, during February was \$12,800,000.

The new mills in Brazil have recently been purchasing wheat in the United States.

"La Molineria Espanola" is the title of a Spanish monthly milling journal just issued at Barcelona, Spain, by Dr. Alfred Nadal.

The firm of Cranson, Huntley & Co. of Silver Creek is now changed to Huntley, Cranson & Co. Mr. G. S. Cranson has retired from the firm.

It is said that "Jubilee" Juggins of England has squandered \$2,000,000 in two years, and further that he has not indulged in grain speculations either.

The flour bill of lading matter is still vexing the flour exporters and importers, and the committees having the matter in charge are indulging in a voluminous correspondence.

MR. NEVILL of England is credited by the *British Baker* as producing more bread than any other baker in the world. He uses over 3 000 sacks (280 lbs.) per week. He uses only flour ground on millstones and will have no other.

THE U. S. Supreme Court holds that a patent granted in the United States, which has first been taken out in a foreign country, does not expire until the extreme limit of time for which an extension thereof may be secured in the foreign country.

BLAKE, the Kansas weather prophet has been urging Kansas farmers to seed extensively with spring wheat, and he thinks that his advice will be heeded so that the harvest will be not far from 60,000,000 bushels for 1889. He promises the most favorable weather.

Dobson, Crawford & Co. of 66 Garden st., Cleveland, O., are introducing an Improved Flour and Corn-meal Bolt to the milling public which has met with good endorsement from a number of prominent millers. We hope to be able to give our readers further information concerning it in our next issue.

WE are under obligations to Mr. H. J. Deal of Bucyrus, O., (the well-known dealer in Mill specialties,) for a report of the meeting of the Northern Ohio Millers Association at Bucyrus. Matters pertaining to local business were principally discussed. The next regular meeting will be held at Norwalk. A special meeting will be held at Elyria, April 16.

As the time for sowing spring wheat is approaching, it may not be amiss to remind the miller that it would be well to advise farmers that only good wheat should be sown. The influence of millers in this respect is great, and we know that many have in the past not only used it, but have gone further and procured seed wheat, and furnished it to farmers at cost, and we believe it has always resulted in profit to both miller and farmer.

JOHN STEVENS of Neenah, Wis., of roller-mill fame is now traveling Europe. During his absence some one started a report that he had been sued for infringement of some foreigner's patent and detained to await trial. The report is unquestionably entirely without foundation and must have been started either maliciously or by some practical joker. Our readers may rest assured that Mr. John Stevens and the Stevens Roller Mills are all right.

Mr. John R. Davis of Neenah, has just arrived home. He parted from the Stevens party only a few days since. He brands the story as a "malicious falsehood."

ABERNATHY'S new book on "Short-system Milling," is meeting with both praise and criticism from the milling journals, as well as millers. It is quite possible that it deserves both. The average mill builder would probably rather have an order for what is called by some the "long system" than the "short-system," for in the former more machinery is used and finer results can be obtained, than with the latter, of course at a greater expense for the plant, but we know of no instance where a mill-builder in any part of the country has refused to build a "short-system" mill when requested to do so. "You pays your money and you takes your choice." The miller must judge for himself which is the best for his interests.

THE capacity of a man's mill is his own affair and of course if he desires to keep it a secret, he is at perfect liberty to try to do so. The chances are, though, that if he does not give the correct capacity himself, his neighbors will do so for him.

We protest, however, against his giving a greater or less capacity for publication than the facts entitle him to. It is far better to decline to answer inquiries. The vanity which has at times led some millers to give their fifty-barrel mill a capacity of a hundred for publication is not altogether harmless. Statisticians asking for such figures should feel safe at all times in using them for calculations. Millers as well as others are interested in knowing what the capacity is of the mills of this country.

OUR readers will bear in mind that Milwaukee during the coming summer and fall will be the place of meeting of a great number of conventions among which is the Millers' National Association which we hope will be largely attended. Further the G. A. R. Encampment will be held here, on which occasion a half million visitors are expected. Everything possible will be done to make the visitors at that time comfortable and happy. We have a beautiful city, accessible by lake and rail, and it possesses great advantages both as a manufacturing point and a place of residence. Many of our visitors from distant parts will no doubt take advantage of the occasion to visit some of the beautiful scenery in different parts of Wisconsin and Minnesota and Northern Michigan, reached by the many lines of railroad centering in this city.

THE STEAM BOILER INSURANCE HUMBUG

For a considerable number of years companies have been in existence whose sole business has been the insurance of steam boilers against explosions and damages resulting therefrom. The business has proved to be lucrative, and the number of such companies are on the increase. It is simply astonishing to find the number of supposed-to-be good business men, that are constantly paying tribute to these companies. Think of it for a moment. If you have a good boiler and a competent engineer, there is no more liability that your boiler will explode than that it will be struck by lightning. If you have not a good boiler and a competent engineer no responsible company will assume your risk. That is the long and short of it. If you have got any money that you feel you must spend, spend it in improvements of your steam plant and increase your engineer's salary.

HAVE you a wife, daughter or sweetheart? If so, send \$1.10 for a copy of *The Ladies' Home Companion* and *THE UNITED STATES MILLER*. Both papers for one year for \$1.10. The former is published twice a month, and is a beautiful 16-page paper. Address THE U. S. MILLER, Milwaukee, Wis.

THE C. I., St. L. & C. Ry. (Kankakee Line) is the best line to Cincinnati, Richmond, Va., Newport News, Washington, Baltimore, Chattanooga, Atlanta, Savannah, Charleston, Jacksonville, St. Augustine, Thomasville, Pensacola, Mobile, New Orleans, and all points in the South and South-east.

NEWS ITEMS OF ALL SORTS.

THE J. B. Allfree Co., of Indianapolis, Ind., report the following contracts:

BURNED, March 15, Buchan & Kuenzal's flour and woolen mill, at New Bremen, Ohio. Loss \$50,000.

BURNED, March 13, Finch & Haywood's grain elevator, including 12,000 bushels wheat and 6,000 bushels barley. Loss \$40,000.

W. M. McCUTCHIN & Co.'s elevator at Winona, burned March 9, with 8,000 bushels of wheat. Loss on building \$28,000. Partially insured.

At Milton, Ont., Feb. 25, the steam grist mill, owned by John Shaw and leased by C. K. Stewart, was burned. Loss, \$7,000; insurance, \$3,000.

A BOILER explosion in the Victoria mills, St. Louis, is reported to have resulted in damages to the amount of \$10,000. One man was killed and another injured.

At West Jefferson, Ohio, Feb. 24, James Peene's grain elevator, near the L. M. Depot, was burned. Loss, \$3,000; insurance \$1,500. Supposed to have started in the engine room.

At Cedarburg, Wis., Feb. 20, fire at 6 A. M. destroyed the flour mills of Henry Wehausen. The loss is estimated at \$5,000. Insurance not known. The flour mill was a five-story stone building, and was one of the finest in the country.

BUFFALO millers recently purchase 600,000 bushels of an especially fine grade of spring wheat which has been stored in Chicago for a long time. Buffalo millers do not propose to stand second to any part of the country in regard to the manufacture of good flour.

CHARLES LARKINS, of the firm of Case & Larkins, dealers in grain and hardware at Knobnoster, Mo., died, and Alonzo Case, the surviving partner, has made an assignment. They had been in business 25 years. A few months ago they claimed assets of \$48,000 and liabilities \$13,000.

NEELY & McCORD are preparing to erect a sixty-barrel mill at Lynville, Tenn.—Showers & Murphy will build a forty-barrel mill at Madisonville, Ky.—J. M. Case, late of the Case Manufacturing Co., Columbus, O., will go to Europe to work up a business there.—The Rockwall Mill Co., Rockwall, Tex., is negotiating for its machinery.

THE contract for building the new mill of the Fountain City Milling Company, at Fountain City, Wis., was let March 21, to a St. Paul contractor for \$134,650. Work is to be commenced at once, and the mill is to be in operation by July 1, 1890. It is to be of white sandstone, with red stone trimmings; to be 80 feet deep by 130 feet long, and five stories high.

A CALIFORNIA correspondent writes: Work is to be begun in the spring on a dam forty-eight feet high across the Klamath River, which is to afford water power for a number of new saw-mills not far from the California and Oregon line in Shasta County. An Eastern syndicate, in which Gen. Alger, of Detroit, Mich., is said to be interested, is behind the scheme and the capital is said to be about \$10,000,000.

A 50-bbl. short-system mill, consisting of a full line of Keystone roller mills, Success bolters, etc., including power plant, for Johnson & Tavenor, Huron, Ind.; a 50-bbl. short-system hominy and pearl-meal mill, consisting of Keystone hullers, four high corn-meal purifiers, hominy separators, etc., for Winslow & Beal, Fairmount, Ind.; a 75-bbl. short-system hominy and pearl-meal mill, consisting of a full line of their special corn-milling machines for Geo. Catt & Co., Bloomfield, Ind.; and the sale of special corn milling machinery to E. A. Spink & Co., Washington, Ind.; Geo. F. Signor & Co., Washington, Ind.; H. Miller & Co., Conklin, Mich.

A. ST. LOUIS jobber in twine and cordage states in an interview that the National Cordage Company, of New York, was in reality a gigantic trust, representing thirty-two manufacturing companies, with a capital of \$20,000,000, and that it owned all the manilla and sisal fibre in the country, and even all the crops now growing, and that it was due to this trust that the price of twine had advanced from 9c. last year to 15c., the present price. Manilla from the Philippine islands and sisal from Yucatan are the raw materials for the manufacture of binders' twine, used in harvesting wheat in this country, and it is said that by this advance in the price of twine the trust is levying 15c. an acre on all the wheat fields of the country.

PLANS for utilizing the Lachine Rapids, Montreal, Canada, for water power to drive electric machinery, as well as to eventually use the water to supply the city, are going ahead. Plans and descriptions of the locality and water power are being prepared and will be transmitted to England, France and Germany to obtain the very highest advice

as to the best means of transmitting the enormous power, which is calculated at from 750,000 to a million horse-power. The company can furnish 5,000 horse-power in a very short time by putting a dam across the natural channel in the island, and should they obtain a contract would do so at once. At all events, before another cold season the company expects to be able to furnish power to the whole city, from an eighth of a horse-power upwards.

MILWAUKEE ITEMS.

LOCAL mill-furnishers report business fair for this season of the year.

RICHARD DAVIS' Marine Boiler Works were damaged by fire to the extent of \$6,000 March 21. The work of this establishment however will not particularly be interfered with.

THE name of the Ph. Best Brewing Co. has been changed to Pabst Brewing Co. Capt. F. Pabst has been for many years the president and manager of this great establishment.

THE Superlative Purifier Co. of this city recently received an order for sixteen New Era Scalpers from Messrs. Ogilvie & Co. of Canada, to be used in their mills in various parts of the Dominion.

THE Milwaukee Bridge and Iron Works have purchased a seven-acre tract of land on Barclay st. and Greenfield av., where they will erect an immense plant to accommodate their constantly increasing business.

MILWAUKEE millers are not entirely satisfied with the present condition of business, but admit that it might be a good deal worse. Our millers are of a philosophical turn of mind, and are not liable to grumble a great deal.

HON. HENRY SMITH, Ex-Member of Congress has returned to Milwaukee, and has resumed his business of builder and millwright. He has just completed the plans for a 50,000-bushels elevator for Wm. Gerlach & Co. of this city.

TWO companies are now organized in this city for the purpose of manufacturing apparatus for burning crude petroleum for fuel for producing steam. Any one desiring to know the latest particulars concerning the best method of burning crude oil with a view to business will do well to address E. C. Notbohm, No. 68 Wisconsin st., Milwaukee, Wis.

WE think it would be well for city authorities that have the purchasing of machinery and supplies for the city's use to purchase of Milwaukee manufacturers and dealers when prices approximate those of outside builders. Recently the water-works department was in need of a hundred hydrants. A Philadelphia firm received the order on a bid of \$24 less than a Milwaukee firm that makes as good if not better hydrants. Is this good business policy? Will it help to build up Milwaukee and give work to skilled and unskilled labor? The above incident is but an insignificant one compared to others of like character. Nearly, if not quite all of an immense amount of water pipe and a large amount of sewer pipe has for years been purchased in distant cities.

THE death of Sylvan Wohlrab, on the Lindworm farm, March 16, recalls his sudden rise and fall on 'Change. While associated with Bernhard Stern, the well-known miller, a fortunate venture in wheat-buying encouraged him to engage in other and larger speculations of the kind. He was very successful for a time, lived in an elegant house on Prospect avenue and was accounted wealthy. It is said he made \$100,000 in one of his undertakings. Soon the tide of his fortune turned, and disaster followed disaster, so that in a short time he was obliged to give up his residence, his carriages and other property. He then moved to the farm of his father-in-law, the late Capt. Lindworm, utterly discouraged and broken in health, lingering through the winter and finally passing away in the presence of his wife and three children. He was about 45 years of age.

THE Wisconsin Mitis Company, Messrs. I. A. & P. E. Dutcher, Milwaukee, manufacturers of wrought iron and steel castings, are doing an active business in this line, with a steadily increasing demand. These castings are made under the Mitis process. What is specially noticeable in these castings, and give them superiority, is their conformity or rather uniformity to pattern, their susceptibility to hardening or welding and also their toughness. They are said to take the place of Smith's forgings of complicated forms, malleable, or ordinary brass, bronze or iron. There is no doubt but that when the character of this process becomes generally known the demand will be materially stimulated. This process needs no annealing and as a necessary consequence, work can be executed in a notably short time after receipt of patterns.

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OUR LONDON LETTER.

Crop and Trade Prospects—Condition of the Milling and Millbuilding Trade—A New Sieve Purifier—New English Patent for Cooling Chilled Rolls—The Flour Trust—Bakers' Troubles—Researches of German Chemists, Etc.

A few days of real winter weather has been experienced during the past month, and visitors to the Corn Exchange at Mark Lane last Monday, from various parts of the country, reported a second good fall of snow this season. The several days frost acted as a good seasonable check to vegetation in the middle of the month, and the farmers talk now more hopefully of the young wheat plant. Still the English climate has a charming independence about it which mocks at the calendar, and so we have had, as a rule, during the past month a very close "muggy" day after each sharp frost. The corn trade during the past month has been unusually sensitive to climate variations, inclement weather almost directly causing strength and mildness as sudden, a return of inactivity and weakness. The tone at the Mark Lane Corn Exchange on Monday last was much firmer, and the country exchanges show some slight change for the better. The imperial average is, indeed, depressingly low; for the week ending February 23, at the 187 statute markets, the price of English wheat was only 29s 5d per quarter on sales of 49,762 qrs., against 55,303 qrs. at 30s 2d in the corresponding week of last year. *Dornbusch's List* puts the summary of last week's markets in the home grain trade as follows:

	Wheat	Flour	Barley	Cats.	Beans.	Pears.	Maize.
Dearer.....	19	...	10	4	4	...	5
Fair or steady.....	27	13	25	21	9	11	16
Dull or weak.....	...	...	...	...	...	...	...
Cheaper.....	...	...	...	...	...	...	...
Total	55	14	37	34	18	14	24

At Mark Lane market on Monday last there was a good attendance, and amongst buyers there was more enquiry which was somewhat general in respect to wheat and flour. Under a Continental demand wheat was about six pence dearer, and flour all around can be reckoned as three pence up. Old Duluth made 45s per quarter, and native and ordinary sorts can be put down at 31s to 38s per quarter. The final official estimate of last year's harvest in this country has now been published, and on the whole the unfavorable opinions expressed by competent authorities last autumn are confirmed. The result given in this return are framed on estimates received from nearly 14,000 parishes in Great Britain and have been very carefully examined, any apparent discrepancies being inquired into and explained before the figures supplied were adopted. For Great Britain the wheat crop is put down as yielding 71,939,647 bushels, the estimated yield being one of 28.05 bushels per acre as against 74,322,747 bushels or 32.07 bushels per acre in 1887. There was thus according to these official figures an increase during the year of 10.66 per cent. in the area devoted to the crop, and a decrease of 12.54 in the yield. The official report beyond this declares that in a given case it was found that last year's wheat yielded 25 to 30 per cent. less flour than that of 1887. Everything therefore tends to show that, although the figures apparent look better than were anticipated by the bulls, the wheat harvest of 1888 was really the smallest one ever reaped in Great Britain. It is no wonder therefore with the South Russian ports still blocked by frost, and the news from the United States as well as the foregoing government report that the demand in the corn trade, which has been languishing for some time past, should revive.

The flour mill engineering trade is very brisk at the present time in England which puts the machinery men in a very good temper and makes it easier to obtain some of the very amusing things that have occurred during the past month. One little bit of news which is in every one's mouth, at least those who are con-

nected with the trade, was told me on Monday last on "Change," where I met no less than ten of the most prominent English milling engineers, including "the noted gentleman" who told "one of the press" at a recent Royal Show, that he had been taking so many orders that he employed a man specially to sharpen his pencils as he had not the time between times—was to the effect that Mr. Higginbottom, the inventor of a new sieve purifier, which is making some stir in the Midlands with the help of one of our old American friends, had cabled to Mr. Geo. T. Smith to come at once to England to make arrangements for introducing the purifier into the States as it would put all other purifiers into the shade, including his own. Mr. George T. Smith was, however, not in such a violent hurry to make his fortune, so simply wrote to his agents, Messrs. W. R. Dell & Son, of Mark Lane, to write and let him know what they thought of the "wonder." The new purifier is a clumsy looking machine with a large wooden case above the sieve which contains an arrangement for collecting the "fluff," and so doing away with the use of a stove room or separate dust collector.

Mr. J. B. Bradshaw, of Sheffield, has taken out a patent for the purpose of cooling chilled rolls more rapidly and uniformly than is at present possible. The inventor casts an internal coil of pipes in the body of the roller, and parallel to its axis. The method by which the casting process is conducted is similar to that employed in casting the coils of blast furnace tuyeres, that is to say, the coil is placed in the required position within the chill, and the molten metal is poured into the mould so as to surround the coil and retain it in position. The roller which is so manufactured is traversed with a helical passage from one end to the other, and the extremities of the hole are flush with the parallel faces of the cylinder. Directly the roll has been formed, and the metal solidified, a blast pipe is connected to one end of the coil, and a continuous current of cold air is forced through it. By this means the metal is uniformly and rapidly cooled, and a large amount of heat in the casting is prevented from passing to the chill. It will be seen that by this process the duty of the chill in cooling the castings is considerably reduced, and the life of the chill will therefore be extended. The internal coil may be brought into requisition on subsequent occasions when the roller has become inordinately heated in the performance of its ordinary duties. In that case the stream of water which is usually directed over the surface for the purpose of cooling the roller is caused in addition to pass through the coil.

Some very lively letters have been written and published, from various people in the *Iron and Steel Trades Journal*, on the question of "Who invented the Spiral Conveyor," and an American who introduced the conveyor to the English market under a special trade name, has had a very uncomfortable time of it. One correspondent to the same journal says at the end of one of his letters: "Engineering practice in this country has been extensive enough to prevent practical men from putting forth claims which cannot be demonstrated in operation, and we feel sore about not using ordinary caution before ordering the conveyor which did 'anything and everything.' A little reflection would have saved us from paying for our experience. It shows the smartness of foreigners, that they can, by means of unlimited power of assertion, rush us into paying patent prices for English inventions mouldy from age and discarded as practical failures." I am afraid the foregoing letter does not do credit to the Britain who wrote it as it does not show him to be a very business individual, but it will give your readers some idea of the qualifications of some Britishers in trade on this side of the "Herring Pond."

The Flour Trust, or the "North Eastern

Milling Company," as it was called, fell through by some of the directors withdrawing from the concern. This state of things was brought about at a meeting called by the promoters on the 14th of February, when it was found that certain promises made by the promoters could not be carried out on account of the action of the public. The result is that since the meeting nothing has been heard about the company, and some of the millers who joined are the sufferers by having some customers leaving them to go to other millers outside the ring.

For some time past the stand holders at the York Corn Exchange have had to complain of the non-attendance of farmers on market days, and to remedy this evil the stand holders held a meeting on the 16th inst. and decided to present a memorial to the Lord Mayor and Corporation of York. The memorialists urge that the practice of farmers transacting their business in the open thoroughfares is greatly to the public inconvenience, and state:

"We, therefore, as corn buyers who have attended this market for a considerable period, and many of us traveled to York from a great distance to purchase the corn grown in the neighborhood of York, have pleasure in supporting the directors of the company in asking your Lordship and the Markets Committee to take urgent steps to prevent the buying and selling of grain in the public streets of the city whilst there is ample and comfortable accommodation in the York Corn Exchange building to which the sellers of corn have free access."

I understand that unless matters mend the York Corn Exchange will be utilized for another purpose. Although not the same as the flour room on Mark Lane market, which never did enjoy much favor since the reconstruction of the old market. This room has been taken by Messrs. Barker, the well-known bankers of Mark Lane.

Now and again we hear of some strange law suits, but the one by which two bakers were fined two shillings and sixpence and costs each under the Lord's Day Act, at Newry, Ireland, for having worked at their trade on Sunday, is somewhat unique. The prosecution was instituted by the Co-operative Bakers' Society, and the conviction was the first obtained under the Act in Ireland for forty years past.

Two German chemists have carefully analyzed a large number of samples of grain from England, India, Russia and other countries, chiefly in order to ascertain the percentages of nitrogenous substances or albumenoids and starch, consequent upon the differences of season and climate. European wheat is said to contain an average of 13.9 per cent. of albumenoids, while Indian grain only contains 12.66 per cent. More generally it is found that the highest proportion of albumenoids and gluten occurs in grain which has been rapidly matured, in which the respective percentages would be 13.17 and 18.08. When ripening does not take place within 130 days the amount of albumenoids is reduced to 12.47 and the gluten only forms to the extent of 9.22 per cent. Small grain is always characterized by a high percentage of gluten, while a large grained sample will be especially rich in starch. It thus appears, according to these gentlemen, that a rapidly matured crop will be more nutritious than one which is ripened late, moreover the greater the proportion of gluten in the flour the more bulky will be the dough, so that flour from quickly ripened corn ought to make lighter pastry. For baking purposes the presence of a considerable quantity of starch is important so the best bread will be that which is made from large grained corn gathered in an early harvest.

In concluding this letter I must not forget to mention that Mr. Reuther, of the firm of Messrs. C. Reuther & Reisert, the well known makers of automatic self-registering grain scales which have had a large sale in Great Britain, will visit the United States next May to open a branch

establishment in one of the principal cities for the sale of their machines.

L. MAYGROVE.

London, March 1, 1889.

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FOREIGN NOTES.

MESSRS. HARTMANN & GOERS, of Berlin, Germany, extensive dealers in flour, have suspended payment.

THE present population of Japan is about 38,500,000. The Japanese are abandoning the use of rice for food and are already free users of wheaten flour, most of which is imported from the United States.

INDIAN wheat crop prospects for the present year are not over-bright. There is a slight increase in the area of grain grown, but the absence of rain has proved hurtful to the wheat plant in many of the provinces.

A LARGE number of Ontario millers met at Toronto, Ont., in February, and after discussing the matter concluded to ask their parliament to put a duty of one dollar per barrel on American flour. This appears to be all right from the Canadian millers point of view, but what parliament and the rest of the population will do about it, is not hard to guess.

GREAT excitement prevails on the Austrian and Hungarian Corn Exchange by reason of the committee of the Buda-Pesth Corn Exchange having excluded from arbitration all time contracts of which cash settlement should form an integral part. When this decree came into force speculation in corn was quite a fashionable "vice" in Hungary, agents from the leading speculators calling at houses to solicit "subscriptions," and all classes of society being enticed into the gamble. The decree has already largely diminished the mania, and so far has done good, but it is also to be feared that the "settlements" of many legitimate grain dealers have been unduly interfered with.

THE sixteen per cent. which the North-Eastern Milling Company are to earn will prove difficult to make. The attempt to secure the principal mills between the Humber and the Tweed has not been entirely successful, and a number of the unsecured mills have formed a co-operative league among themselves, which threatens to undermine the work of the syndicate. The public are not coming forward very liberally with their money, though a considerable amount of capital has, undoubtedly, been subscribed. The enterprise will, probably start with a million sterling, instead of two millions, as originally proposed. A new mill, to make 1,200 sacks a day is, it may be mentioned in passing, nearly completed at Dunston-on-Tyne, and this gigantic private enterprise is in the hands of an opponent of the syndicate. —*Mark Lane Express*

THE COST OF BREAD.—The distribution of bread, after it is baked now costs the average workman in a city as much as it does to grow the wheat, mill it, move it 1,500 miles and convert it into bread, all put together. —*Forum.*

"GIBBETING BREAD."—This curious custom is still practiced by the Lincolnshire housewives. The origin appears to be as follows: Not infrequently, in consequence of a bad harvest and the premature garnering of wheat before the ears have hardened, bread, after it is baked, will be found to be fibrous, or, in common parlance, *ropy*. It is customary for the women, when they find such to be the case, to take a stick and drive it through one of the loaves, which is afterwards hung carefully up in the larder to guard against the repetition of ropy bread in future bakings. —*British Baker.*

A CORNER IN GRAIN: Wife—"I see that our neighbor Bonds is down again."

Husband—"What is it this time? Wheat, I suppose?"

Wife—"No, I think from his appearance it was rye that floored him now. And I don't want you to dabble with it any more." —*Lowell Citizen.*

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Borden, Sellick & Co., 48 & 50 Lake st., Chicago, Ill., manufacturers of "HARRISON CONVEYOR" for Grain, Malt, etc., etc. [Mr. 89.]

John C. Higgins & Son, 185 West Kinzie Street, Chicago, Ill., mfrs. of and dressers of Mill Picks. [Mr. 89.]

H. P. Yale & Co., Milwaukee, Wis., Manufacturers' Agents of Engines and Boilers, New York Leather Belting Co.'s Leather Belting, Dodge Wood Pulley.

Pools & Hunt, Baltimore, Md., manufacturers of Steam Engines, Water Wheels, Flour, Corn, Paper, Saw and Cotton Mill Machinery.

W. J. Clark & Co., Salem, O., manufacturers of "SALEM" Elevator Buckets, etc.

Thornburgh & Glessner, 18-22 N. Clinton St., Chicago, Ill., manufacturers of Mill and Elevator Supplies.

R. C. McCulley, (P. O. Box 214) Lancaster, Pa., manufactures Cob Crushers, Cooper's Stoves, Castings, Patterns, etc. [Mr. 89.]

B. H. & J. Sanford, Phoenix Iron Works, Sheboygan, Falls, Wis., manufacturers of the "IMPROVED WALSH DOUBLE TURBINE WATER WHEEL." [Mr. 89.]

John C. Kilner, York Foundry and Engine Works, York, Neb., Mill and Elevator machinery of all kinds, Engines, Boilers, Pulleys, Shafting, etc. [Mr. 89.]

The Gutta Percha and Rubber Mfg. Co., 150-161 Lake st., Chicago, Ill., Belting and Rubber Goods. [Mr. 89.]

The Avery Elevator Bucket Co., sole owners and manufacturers of Seamless Steel Elevator Buckets, Wason, Lake and Dart etc., Cleveland, O. [Mr. 89.]

Richmond Mfg. Co., Lockport, N. Y., manufacturers of Grain Cleaning Machinery, Bran Dusters, etc. [Mr. 89.]

N. Y. Belting and Packing Co., N. Y. Leather Belting Co., Goulds & Austin, Agents, 187 and 189 Lake Street, Chicago. [Mr. 89.]

Weiler Bros., 94 Wendell st., Chicago, Mfrs Mill and Elevator specialties, Cups, Boots, Spouts, Steel Conveyors, Power Grain Shovels; dealers in Cotton and Rubber Belting, etc. [Apr. 89.]

The Shields & Brown Co., 240 and 242 Randolph st., Chicago, and 143 Worth st., New York. Mfrs. of Sectional Insulated Air Coverings for steam, gas, and water pipe, etc. [May 89.]

W. G. Avery Mfg Co., 10 Vincent st., Cleveland, O., Specialties: Avery Lever Belt Punches, Avery Seamless Elevator Buckets, Belting, Elevator Bolts, &c. [May 89.]

The M. J. Deal Specialty Co., Bucyrus, Ohio. Headquarters for Flour and Grain Testing Appliances, and Specialties for the Milling, Flour and Grain trades.

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E. Sanderson & Co., "Phoenix Mills, Milwaukee, Wis., U. S. A. Manufacturers and Exporters of choice spring wheat flours. Daily capacity 1500 barrels. [Apr. 89.]

Bernhard Stern, "Jupiter Mills," Milwaukee Wis. Roller Mill. Hard wheat Patents. Principal brand, "Jupiter." [Apr. 89.]

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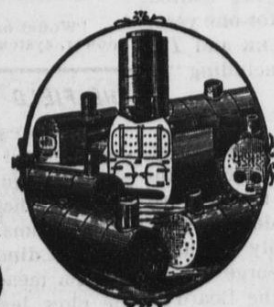
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[Jan. 89.]

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This new bolter and dresser was designed to meet the want long felt among millers for a machine not so severe as a centrifugal, but for more rapid and regular bolting than the old style reels. This

tween the circular ribs, which is very detrimental to bolting. This is done while the machine is in operation, or standing, by turning a nut at the end of the shaft, which draws the tailhead of the reel toward the end of the machine, stretching the cloth evenly from end to end. The machine is built of the very best material, being principally of hard wood, no pains being spared to make it complete in workmanship and elegant in appearance. Surely no better machine has yet been placed before the milling public. We have been slow to advertise it, desiring to fully test it on all kinds of material. The success it has already attained, together with a largely increasing

demand, warrant us in greatly improving our facilities for its manufacture, which also enable us to offer it at an extremely low price.

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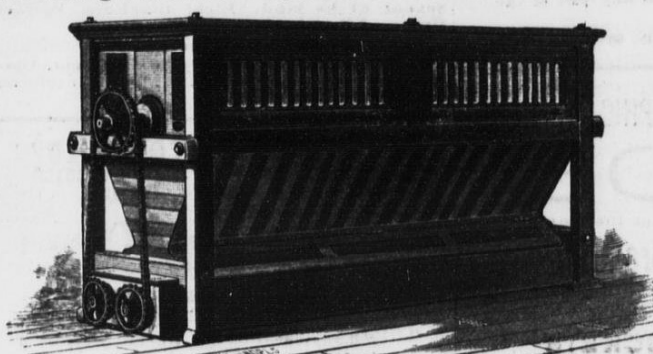
The impression is very generally prevalent that the field of invention is being reduced by the achievements of the thousands of bright intellects that are now working upon its various problems. As each circuit of a mowing-machine diminishes the area of grass to be cut in a meadow, as each furrow turned by the plow lessens the work to be done on a farmer's arable acres, so it is supposed that every new application of science, or device for promoting the comfort, convenience or profit of mankind brings nearer a coming time when invention will be compelled by lack of room to come to a halt. This is natural, because we are accustomed to compare the immaterial and intangible with material and tangible things. When we speak of a field, whether it be for the plowman, the poet, or the inventor, we naturally think of measurable space. But the field of mental effort is not measurable, and so far as we know, is unlimited. To fix its bounds would be to set an arbitrary limit to the progress of the human race. The science, art, literature—in all that exalts and embellishes life—the space yet available for progress comes as near infinitude as anything we are capable of conceiving. To one who stands in a valley the horizon is near; let him climb a hill, and his view is expanded. When he attains a greater height the prospect appears still wider. The inventive genius of the world is rising higher and higher every day. Its prospect never appeared so

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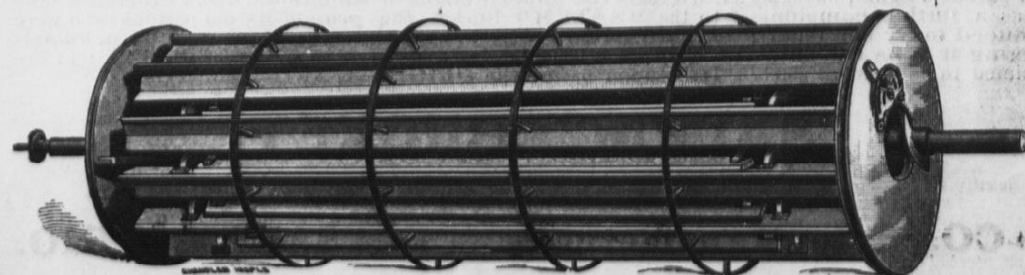
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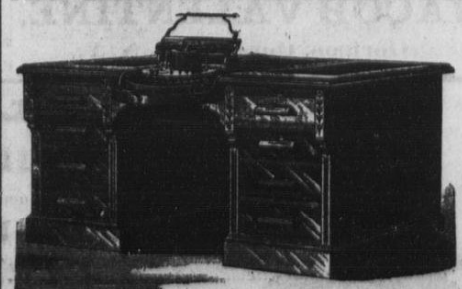
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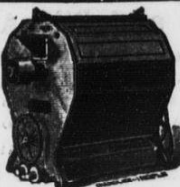
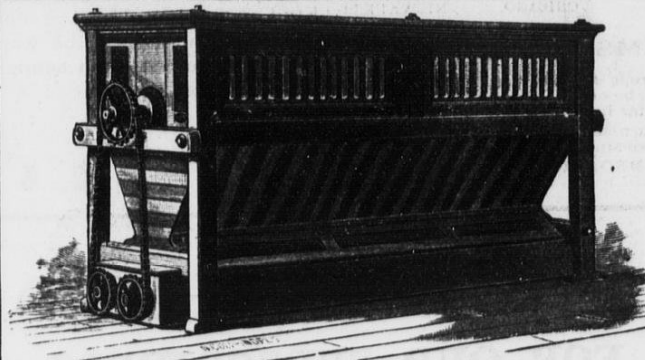


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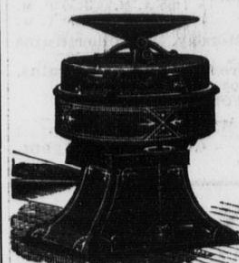
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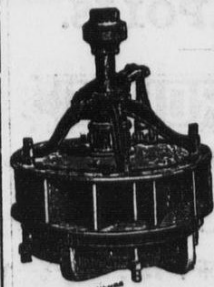
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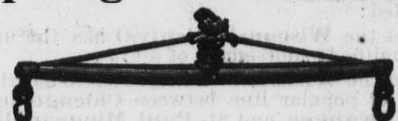
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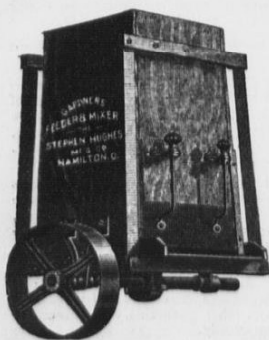
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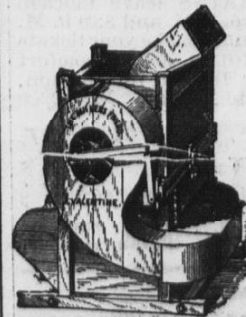
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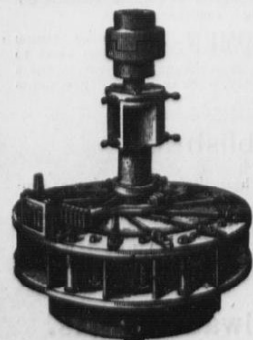
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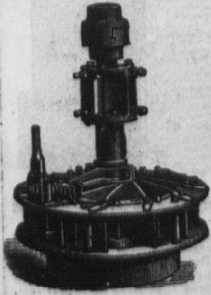
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